

What is claimed is:

1. A bearing assembly comprising:

a cage comprising a pocket portion extending between a pair of radial flanges extending in a first radial direction, the pocket portion including a plurality of roller retaining pockets, each 5 roller retaining pocket configured to prevent substantial radial movement of a roller positioned therein in a second radial direction opposite the first radial direction;

a plurality of rollers positioned in respective roller retaining pockets;

10 a sleeve positioned between the radial flanges, the radial flanges extending a distance in the first radial direction such that the flanges radially overlap the sleeve whereby the sleeve is retained between the flanges and the sleeve prevents substantial radial movement of the rollers in 15 the first radial direction.

2. The bearing assembly of claim 1 wherein each pocket has a general width W

slightly greater than a diameter of a respective roller and at least one area of reduced diameter R 15 less than the width W.

3. The bearing assembly of claim 2 wherein the pocket portion is defined by a

plurality of spaced apart crossbars, each crossbar including a central portion extending between a pair of laterally outward portions with the central portion radially offset from the laterally 20 outward portions.

4. The bearing assembly of claim 3 wherein the central portions are offset in the second radial direction relative to the outward portions and the central portions have at least one area of increased circumferential width to define the at least one area of reduced diameter R.

5 5. The bearing assembly of claim 4 wherein the first radial direction is radially outward and the second radial direction is radially inward.

6. The bearing assembly of claim 4 wherein the first radial direction is radially inward and the second radial direction is radially outward.

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7. The bearing assembly of claim 3 wherein the central portions are offset in the first radial direction relative to the outward portions and the outward portions have at least one area of increased circumferential width to define the at least one area of reduced diameter R.

15 8. The bearing assembly of claim 7 wherein the first radial direction is radially outward and the second radial direction is radially inward.

9. The bearing assembly of claim 7 wherein the first radial direction is radially inward and the second radial direction is radially outward.

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10. The bearing assembly of claim 1 wherein the bearing assembly has a central axis and the sleeve has an inner radius and an outer radius relative to the central axis and each flange

terminates at an end surface that is at a radius relative to the central axis between the sleeve inner and outer radii.

11. The bearing assembly of claim 1 wherein the sleeve has at least one tapered
5 lateral edge.

12. The bearing assembly of claim 1 wherein the first radial direction is radially outward and the second radial direction is radially inward.

10 13. The bearing assembly of claim 12 wherein the rollers define an outer diameter and the sleeve has an inner diameter substantially equal to the outer diameter defined by the rollers such that the sleeve provides an outer bearing surface for the rollers.

14. The bearing assembly of claim 13 wherein each flange terminates at an end
15 surface and each flange end surface has a diameter greater than the sleeve inner diameter.

15. The bearing assembly of claim 14 wherein the sleeve has an outer diameter greater than each flange end surface diameter.

20 16. The bearing assembly of claim 12 wherein the sleeve is tapered on an inner surface along at least one lateral edge thereof.

17. The bearing assembly of claim 1 wherein the first radial direction is radially inward and the second radial direction is radially outward.

18. The bearing assembly of claim 17 wherein the rollers define an inner diameter 5 and the sleeve has an outer diameter substantially equal to the inner diameter defined by the rollers such that the sleeve provides an inner bearing surface for the rollers.

19. The bearing assembly of claim 18 wherein each flange terminates at an end surface and each flange end surface has a diameter less than the sleeve outer diameter.

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20. The bearing assembly of claim 19 wherein the sleeve has an inner diameter less than each flange end surface diameter.

21. The bearing assembly of claim 17 wherein the sleeve is tapered on an outer 15 surface along at least one lateral edge thereof.